REMARKS/ARGUMENTS

This is a preliminary amendment in a RCE Application. The Office Action mailed January 6, 2004 has been carefully reviewed. Reconsideration of this application, as amended and in view of the following remarks, is respectfully requested. Applicants have elected group II, claims 13-25 for examination in this application. The non-elected claims are group I, claims 1-12 and group III, claims 26-34. Applicants withdrew claims 1-12 and 26-34 subject to Applicants right to file divisional applications covering the inventions of claims 1-12 and 26-34. The claims presented for examination are claims 13-25.

35 USC 102 Rejection

In numbered paragraph 2 of the Office Action mailed June 27, 2003, claims 13, 19, and 21-25 were rejected under 35 USC 102(b) as being anticipated by the Durheim (U.S. 6,070,813) reference. Applicants have amended the single independent claim 13 and respectfully traverse the rejection of claims 13, 19, and 21-25 under 35 USC 102(b).

Applicants respectfully submit that the Durheim reference does not show elements of the rejected claims 13, 19, and 21-25. As stated in Verdegaal Bros. v. Union Oil Co. of California, 814 F.2nd 628, 631 USPQ 1051, 1053 (Fed. Cir. 1987), "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference."

Elements of Applicants' rejected claims 13, 19, and 21-25 that are not shown by the Durheim reference include the following:

(1) "said step of generating a first laser beam comprising generating a first high power percussive laser beam that has greater power than said second laser beam,"

(2) "said high power percussive laser beam producing a first lever of power and said first high power percussive laser beam being focused to a first high

power percussive laser beam spot diameter that is slightly smaller than said final diameter of said hole,"

(3) "said step of generating a second laser beam comprising generating a second and trepanning laser beam that has less power than said first laser beam,"

(4) "said second and trepanning laser beam producing a second level of power that is less than said first level of power and said second and trepanning laser beam having a spot diameter substantially smaller than said diameter of said hole,"

(5) "directing and trepanning by tracing said second and trepanning laser beam along said diameter and at said hole being formed for expanding said ragged hole having a diameter slightly smaller than said final diameter of said hole so that said hole is at said final diameter and for accurately cleaning up said ragged hole so that said final hole has said final diameter and has dimensions of high precision."

Since elements of the claims now presented for examination are not shown by the Durheim reference, the rejection is unsupported by the art and should be withdrawn.

35 USC 103 Rejection

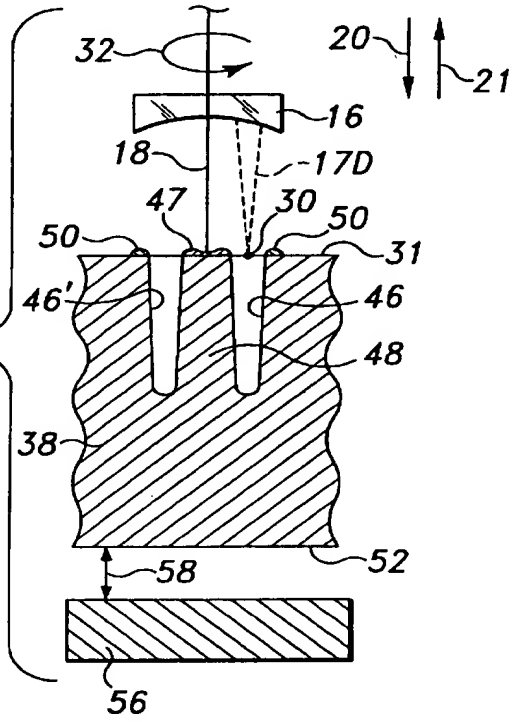
In numbered paragraph 5 of the Office Action mailed June 27, 2003, claims 14-18 and 20 were rejected under 35 USC 103(a) as allegedly being unpatentable over the Durheim reference in view of Inagawa et al (U.S. 5,166,493). Applicants have amended the single independent claim 13 and respectfully traverse the rejection of Applicants' claims 14-18 and 20 under 35 USC 103(a).

The factual inquiries set forth in Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966) that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) include "Ascertaining the differences between the prior art and the claims at issue." The Durheim reference fails to disclose a number of elements of the invention defined by Applicants' amended claims. As explained above in connection with the 35 USC 102(b) rejection there

are five (5) specific elements of Applicants' invention that are not shown in the Durheim reference. The five elements are listed above.

With regard to Applicants' element #1, the Durheim reference does not show Applicants' step of "generating a first high power percussive laser beam that has greater power than said second laser beam." As illustrated by figure 2A set out below, the Durheim reference uses a low power laser beam 17D and repeatedly traces the low power laser beam 17D around a point to drill a circular raceway and ultimately form an initial hole.

Fig. 2A



With regard to Applicants' element #2, the Durheim reference does not show Applicants' "said high power percussive laser beam producing a first lever of power and said high power percussive laser beam being focused to a first high power percussive laser beam spot diameter that is slightly smaller than said final diameter of said hole." The Durheim reference uses two trepanning laser beams.

Both the first Durheim laser beam and the second Durheim laser beam are trepanning laser beams. The Durheim first laser beam repeatedly traces the low power laser beam around a point to drill a circular raceway and ultimately form an initial hole.

With regard to Applicants' element #3, the Durheim reference does not show Applicants' "said step of generating a second laser beam comprising generating a second and trepanning laser beam that has less power than said first laser beam." The Durheim reference uses two trepanning laser beams and there is no showing that the Durheim second laser beam has less power that the Durheim first laser beam.

With regard to Applicants' element #4, the Durheim reference does not show Applicants' "said second and trepanning laser beam producing a second level of power that is less than said first level of power and said second and trepanning laser beam having a spot diameter substantially smaller than said diameter of said hole." The Durheim reference uses two trepanning laser beams and there is no showing that the Durheim second laser beam produces a second level of power that is less than said first level of power or that the second Durheim laser beam haves a spot diameter substantially smaller than said diameter of said hole.

With regard to Applicants' element #5, the Durheim reference does not show Applicants' "directing and trepanning by tracing said second and trepanning laser beam along said diameter and at said hole being formed for expanding said ragged hole having a diameter slightly smaller than said final diameter of said hole so that said hole is at said final diameter and for accurately cleaning up said ragged hole so that said final hole has said final diameter and has dimensions of high precision." The Durheim first trepanning laser beam has a spot diameter of approximately 20 microns whereas the final diameter of the

hole is approximately 150 microns. The first trepanning laser beam is repeatedly traced around a point to drill a circular raceway and ultimately form an initial hole. The second trepanning laser beam is the used to enlarge the initial hole.

There is no possible obvious combination of the Durheim and Inagawa et al references that would produce Applicants' claimed invention. There is no teaching or suggestion in the references to form an obvious combination. The cited references do not provide a teaching of Applicants' claimed combination of steps.

The Durheim reference teaches away from combining the Durheim reference and the Inagawa et al reference to produce Applicants' claimed combination of steps. In the Durheim reference both laser beams are low power trepanning laser beams. The purpose of the Durheim reference is to allow low power trepanning laser beams (only) to be used. Therefore the Durheim reference teaches away from Applicants' use of a "first high power percussive laser beam that has greater power than said second laser beam."

SUMMARY

The undersigned respectfully submits that in view of the foregoing amendments and the remarks, the rejections of the claims raised in the Office Action dated January 6, 2004 have been fully addressed and overcome. The present application is believed to be in condition for allowance. It is respectfully requested that this application be reconsidered, that the claims be allowed, and that this case be passed to issue. If it is believed that a telephone conversation would expedite the prosecution of the present application, or clarify matters with regard to its allowance, the Examiner is invited to call the undersigned attorney at (925) 424-6897.

Respectfully submitted,

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Livermore, California
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